

CLAIMS

What is claimed is:

1. A method of routing call data between two switching points, comprising:

receiving said call data from a source switching point at an IP gateway having at
5 least one trunk circuit connecting said gateway to said source switching
point, said call data transferred on one of said trunk circuits;
packetizing said call data at said IP gateway to format said call data into one or
more data packets suitable for transmission over an IP network;
assigning an IP destination address to said packet data based on which said
10 trunk circuit said call data was received by said IP gateway; and
transmitting said packets over an IP network to a destination switching point.

2. The method of claim 1, further comprising:

receiving one or more data packets from an IP network at an IP gateway
15 connected to a destination switching point by at least one trunk circuit;
assembling said call data from said received data packets;
directing said call data to one of said trunk circuits based on a source IP address
associated with said data packets; and
transferring said call data to said destination switching point.

3. The method of claim 1, wherein said at least one trunk circuit connecting said
20 gateway to said source switching point comprises a plurality of trunk circuits
connecting said gateway to said source switching point.

4. A method of routing call data between two switching points, comprising:

receiving one or more data packets from an IP network at an IP gateway

connected to a destination switching point by at least one trunk circuit;

assembling said call data from said received data packets;

5 directing said call data to one of said trunk circuits based on a source IP address

associated with said data packets; and

transferring said call data to said destination switching point.

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5. A method of routing mobile communication system call data through an IP network,
comprising:

transmitting call data from a switching point to an IP gateway on one of at least
one trunk circuit connecting said switching point to said IP gateway;

- 5 packetizing said call data at said IP gateway to format said call data into one or
more data packets suitable for transmission over an IP network;

assigning an IP destination address to said data packets at said IP gateway
based on which of said trunk circuits said call data was transferred from
said switching point to said IP gateway;

- 10 assigning an IP source address to all said data packets, wherein said IP source
address is associated with said IP gateway; and
transmitting said data packets over an IP network.

6. The method of claim 4, further comprising:

- 15 receiving one or more data packets from said IP network at an IP gateway
connected to a destination switching point by at least one trunk circuit;

assembling said call data from said data packets;

directing said call data to one of said trunk circuits based on an IP source
address associated with said data packets; and

- 20 transmitting said call data from said IP gateway to said destination switching
point.

7. The method of claim 4, wherein said at least one trunk circuit connecting said
switching point to said IP gateway comprises a plurality of trunk circuits connecting
25 said switching point to said IP gateway.

8. A method of routing mobile communications system call data through an IP network,
comprising:

receiving one or more data packets from said IP network at an IP gateway

connected to a destination switching point by at least one trunk circuit;

- 5 assembling said call data from said data packets;

directing said call data to one of said trunk circuits based on an IP source

address associated with said data packets; and

transmitting said call data from said IP gateway to said destination switching
point.

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9. An IP gateway to provide virtual trunks for routing call data between switching points in a mobile communications system, comprising:

at least one trunk circuit connected to a switching point in said mobile communications system, said at least one trunk circuit carrying said call data;

an IP interface connected to an IP network;

a data packetizer to packetize call data received by said IP gateway on said trunk circuits into one or more data packets suitable for transmission over said IP network; and

an IP address generator to generate an IP destination address for said data packets based on which of said at least one trunk circuit said call data was received from said switching point by said IP gateway.

10. The IP gateway of claim 7, further comprising:

a data depacketizer to assemble data packets received from said IP network into mobile communications system call data; and

a demultiplexer directing said call data to one of said at least one trunk circuits based on an IP source address associated with said data packets.

11. The IP gateway of claim 7, wherein said at least one trunk circuit connected to a switching point comprises a plurality of trunk circuits connected to said switching point.

12. An IP gateway to provide virtual trunks for routing call data between switching points
in a mobile communications system, comprising:

at least one trunk circuit connected to a switching point in said mobile
communications system, said at least one trunk circuit carrying said call
5 data;

an IP interface connected to an IP network;

a data depacketizer to assemble data packets received from said IP network into
mobile communications system call data; and

a demultiplexer directing said call data to one of said at least one trunk circuits
10 based on an IP source address associated with said data packets.